Application No.: 10/075,002 Docket No.: SMFI 3.0-001

REMARKS/ARGUMENTS

This Amendment is filed in response to the Official Action mailed December 23, 2003, the shortened statutory period for filing a response expiring on March 23, 2004. Applicants submit herewith a three-month extension petition to reset the deadline for responding to the Official Action to and including June 23, 2004. In view of the following amendments and remarks, allowance of all pending claims is respectfully requested.

Claims 1-38 are currently pending in the application. Applicants have amended claims 1, 3, 9, 17 and 22 herein. Therefore, claims 1-38 remain pending in the application. Of the pending claims, claims 21-38 were indicated in the December 23 Official Action as being allowable, and are expected to remain in that condition following the present amendment.

As an initial matter, Applicants wish to extend their gratitude to Examiner Anthony Ojini and his Supervisory Patent Examiner, Joseph Hail, for the courtesies extended during the telephonic interview of June 22, 2004. Applicants have drafted the enclosed amendments with close consideration to the thoughts and comments of both Mr. Hail and Mr. Ojini, and believe that the present claims are each now in a condition for allowance or at least place this application in a better condition for appeal. Amendments made after final action "presenting rejected claims in better form for consideration on appeal may be admitted." 37 CFR \$1.116(b).

With regard to Mr. Hail's comments on June 22, Applicants have amended the pending claims to overcome the Examiner's 35 U.S.C. § 103(a) rejection of claims 1, 4, 5, 9, 12, and 17 over Carpenter (U.S. Patent No. 3,629,976) in view of Erichsen (U.S. Patent 5,643,058). For example, in claim 1, Applicants have replaced the term "adjacent" with the word "within," to more distinctly claim the inflatable diaphragm

Also in claim 1, Applicants have being within the outlet. added the feature of the inflatable diaphragm being "inflated and deflated to seal and unseal [the] outlet thereby controlling the flow of abrasive particulate material through [the] outlet." . It is believed that the combination of these amendments adds no new matter into this application and places this claim in a condition for allowance. Each of claims 9 and 17. independent claims, have been amended to include these features and are expected to likewise be in condition for allowance. Each of the remaining rejected claims, claims 4, 5, and 12, depend from either claim 1 or claim 9 and are expected to be in a condition for allowance based on the allowability of their underlying base claim.

The addition of these features into the rejected independent claims clearly distinguishes the claims, on their faces and not merely in the accompanying remarks, from the Carpenter reference. In the Carpenter reference, a feed chamber 12 feeds particulate material 34 through outlet 18. the outlet 18 includes a fixed opening 20. A gate 22 having an opening 24 is mechanically connected to the diaphragm 30. the chamber 34 is not pressurized, a spring 28 forces the gate 22 into the position shown by the phantom lines in Fig. 3, such that opening 24 is generally to the left of outlet 18 when shown in the orientation of Fig. 3. When chamber 34 is pressurized, the internal pressure forces the diaphragm 30 to shift to the right, when viewed in the orientation of Fig. 3. shifts with the diaphragm 30 such that opening 24 of the gate 22 will overlap opening 20 of outlet 18 to permit particles to In this regard, the diaphragm 30 of Carpenter indirectly controls the flow of particulate as it is merely in the vicinity of the outlet and acts through an intermediary gate 22, and is not directly in contact with the outlet.

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Meanwhile, in the present invention, the diaphragm itself directly occludes flow of particulate material through the outlet. The written specification and the drawings make clear that the diaphragm can be expanded such that at least some portion of the diaphragm contacts the wall of the outlet when it is desired to block the material from flowing therethrough. It is firmly believed that the distinction between the Carpenter reference and the present invention, as claimed, is of patentable scope.

It is also firmly believed that the amendments and remarks made herein do not alter the scope of the invention in such a manner as to require an additional search. Using claim 1 as an illustration, as originally claimed, claim 1 required that the inflatable diaphragm be "at" the outlet. It is conceded that the term "at" is more encompassing than the presently used term "within." As evidenced by the Examiner's rejection under the Carpenter reference, the term "at" encompasses not only within, touching, or the like, but also encompasses near or in In the Examiner's view, the diaphragm of the vicinity. Carpenter is spaced from the outlet, but is still "at" the outlet. Thus, any search conducted in association with a claim requiring the diaphragm being "at" the outlet would necessarily encompassed a search of diaphragms "within" the outlet.

Further, even had the initial search not been so broad as to encompass a diaphragm "within" the outlet, the Examiner had a second opportunity to conduct a search of diaphragms "within" the outlet. In response to the August 22, 2003 Non-Final Official Action, Applicants amended claim 1 to require the diaphragm to be "adjacent" the outlet, rather than "at" the outlet. The Applicants further defined "adjacent," as Applicants are entitled to do so long as the ascribed definition is not repugnant to the defined term, as meaning "immediately in

front of the outlet, immediately behind the outlet, or within the outlet, such that there is a common endpoint or border between the outlet and the diaphragm." If an additional search was required due to the narrowing of claim 1, it should have been conducted at that stage - not now when the rejection has been made final.

The affect of requiring an additional search at this juncture of the proceedings is to prejudice the Applicants by requiring them to expend additional sums paying for a search that could have, and perhaps should have, been conducted on at least two previous occasions, prior to the entry of a Final Action. It is therefore submitted that to the extent a search is required, the finality of this action be withdrawn so a search may be conducted without the requirement of additional fees being expended by the Applicants.

As a final note, Applicants have amended claims 3 and 22 to correct obvious spelling errors. It is respectfully submitted that such corrections do not materially alter the scope of claims 3 or 22, and that claim 22 remains in condition for allowance.

In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to withdraw the outstanding rejection of the claims and to pass this application to issue.

If, however, for any reason the Examiner does not believe that such action can be taken at this time, it is respectfully requested that he telephone Applicants' attorney at (908) 654-5000 in order to overcome any additional objections which he might have.

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If there are any additional charges in connection with this requested amendment, the Examiner is authorized to charge Deposit Account No. 12-1095 therefor.

. Dated: June 23, 2004

Respectfully submitted,

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